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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,763	01/08/2001	Roy Greeff	MI40-321	8690

21567 7590 11/23/2001

WELLS ST JOHN ROBERTS GREGORY AND MATKIN
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601 W FIRST AVENUE
SPOKANE, WA 992013828

EXAMINER

NGUYEN, DUC M

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 11/23/2001

7

Please find below and/or attached an Office communication concerning this application or proceeding.

70

Office Action Summary

Application No.

09/757,763

Applicant(s)

Greeff et al

Examiner

Duc Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 19, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 53-104 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 104 is/are allowed.
- 6) ☒ Claim(s) 53-58, 60-62, 64-67, 69-75, 77-81, 83-87, and 89-103 is/are rejected.
- 7) ☒ Claim(s) 59, 63, 68, 76, 82, and 88 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

This action is in response to applicant's response filed on 9/19/01. Claims 53-104 are now pending in the present application.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **53-56, 60, 62, 64-65, 70-73, 77-79, 83-85** are rejected under 35 U.S.C. 103(a) as being unpatentable by **MacLellan et al** (US Patent Number **5,649,296**).

Regarding claims **53-56, 60, 62, 64-65, 70-73, 77-79, 83-85**, **MacLellan** discloses a wireless communication using modulated backscatter technology, wherein a mixer is used for down converting and demodulating the IF signal of the subcarrier from the return signal (see **Fig. 2 and col. 4, line 34 - col. 5, line 13**). Since it would have been obvious to one of ordinary skill in the art that the mixer produces a signal having frequencies $(f_2 - f_1)$ and $(f_2 + f_1)$ when mixing with the local continuous wave signal, hence, **with the broadest reasonable interpretation**, the filtering process (or frequency conversion) for filtering carrier frequency of CW signals would read on the claimed limitation of "reducing an amplitude of a component of the modulated

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continuous wave signal having a frequency of the continuous wave signal” and the output signal having frequencies (i.e, f_2-f_1) would read on the claimed limitation of “maintaining an amplitude of another component of the modulated continuous wave signal having another frequency”.

Therefore, the claimed limitations are made obvious by **MacLellan** for providing an apparatus as claimed, in order to demodulate the information from the modulated backscatter signal.

Regarding claims **89, 91, 93, 95, 98, 101**, the claims are rejected for the same reason as set forth in claim **53** above. In addition, since the filtering process rarely filter out any component completely to be exactly zero value as intended for an idealistic case, hence, the filtered out component still have some very small non-zero values in realistic. Therefore, the claimed limitations are made obvious by **MacLellan** in an non-ideal situation case.

Regarding claims **90, 92, 94, 95, 99, 102**, the claims are rejected for the same reason as set forth in claim **53** above. In addition, **MacLellan** discloses the reducing (filtering) is performed prior the demodulation (see Fig.2, refs. 212, 210, 208).

Regarding claims **97, 100, 103**, the claims are interpreted and rejected for the same reason as set forth in claim **53** above.

3. Claims **57-58, 61, 66-67, 69, 74-75, 80-81, 86-87** are rejected under 35 U.S.C. 103(a) as being unpatentable by **MacLellan et al** in view of **Nysen et al** (US Patent Number **4,725,841**).

Regarding claims **57-58, 61, 66, 69, 74-75, 80-81, 86-87**, the claims are rejected for the same reason as set forth in claim **53** above. However, **MacLellan** fails to disclose adjusting at

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least one of an amplitude and a phase of the continuous wave signal. However, in an analogous art, **Nysen** discloses a frequency conversion wherein a local signal and a backscattered signal are modified by circuit elements 28 and 30 before being inputted to the mixer, these circuit element may change amplitude or phase of the local signal or the backscattered signal (see col. 5, lines 26-40), and this would read on “adjusting at least one of an amplitude and a phase of the continuous wave signal”. Therefore, it would have been obvious to one of ordinary skill in the art to provide the above teaching of **Nysen** to **MacLellan** for modifying or adjusting the local signal before processing so that a better result can be achieved.

Regarding claim 67, the claim is rejected for the same reason as set forth in claim 57 above. In addition, since the process of matching the amplitudes is just simply a scaling process which is used widely in signal processing. Therefore, it would have been obvious to one skill in the art to rescale signals before processing. Therefore, it would have been obvious to one of ordinary skill in the art to further modify **Nysen** and **MacLellan** for rescaling signals before processing so that a better result can be achieved.

Allowable Subject Matter

4. Claims 59, 63, 68, 76, 82, 88 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claim 104 is allowed.

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6. The following is a statement of reasons for the indication of allowable subject matter:

As to claims **59, 63, 68, 76, 82, 88, 104**, the cited prior arts fail to disclose or made it obvious a method of communicating within a coherent backscatter system wherein the receiver is configured to reduce the amplitude of a frequency component of the modulated continuous wave signal (or backscatter signal) by adjusting the amplitude and phase of the local continuous wave signal to provide an adjusted continuous wave signal and sum the adjusted continuous wave signal with the modulated continuous wave signal.

Response to Arguments

7. Applicant's arguments with respect to claims 53-104 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- **Vincent** (US Patent Number 5,369,793), RF receiver adapted to process received RF pulses and reject RF continuous wave signal.

- **Turner et al** (US Patent Number 5,305,008), Transponder system.

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

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Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry)

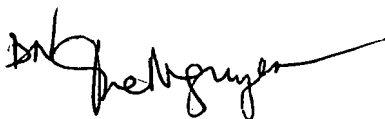
(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington VA, Sixth Floor (Receptionist).

Any inquiry concerning this communication or communications from the examiner should
be directed to Duc Nguyen whose telephone number is (703) 306-4531.

Any inquiry of a general nature or relating to the status of this application should be
directed to the Group receptionist whose telephone number is (703) 305-3900.

Duc Nguyen



Nov 17, 2001